
DEATHS DUE TO DRUGS & POISONS: 1999

In 1999, there were 210 deaths due to drugs and poisons (excluding those due to carbon monoxide). This comprised approximately 14% of all deaths investigated (210/1468). The total number of drug caused deaths has decreased compared to 1998 figures when there were 234 drug deaths. The 234 drug caused deaths in 1998 remains the highest number ever recorded in King County. In 1999 there were 114 opiate-caused deaths and seventy-three (73) cocaine-caused deaths. Deaths due to drugs and poisons comprised 31% (210/668) of all suicides, accidents, and undetermined deaths combined.

Of the drug/poison deaths in 1999, 34% (71/210) were due to a single drug or poison, and 59% (124/210) were the result of drugs or poisons in combination. The year 1999 continued the trend of the majority of drug deaths being the result of multiple drug intoxication (67% in 1998, 72% in 1997, 66% in 1996). Table 9-3 displays the various categories of drugs that caused death in 1999. Because of their prevalence, ethanol, cocaine (a stimulant), and opiates (narcotic) are identified as separate drug categories. Other categories include anticonvulsants, anti-depressants, stimulants, analgesics, barbiturates, tranquilizers, anti-psychotics, prescription opiates, sedatives, and other drugs/poisons.

The manners of suicide, accident and undetermined are represented in the deaths due to drugs and poisons. In 1999, there were no homicidal deaths in which drugs or poisons were the primary cause of the death, although the victim may have been under the influence of drugs at the time of the fatal incident. In 1986, two homicidal deaths occurred in King County caused by the ingestion of cyanide-contaminated extra-strength Excedrin capsules. In 1991, two cases of homicidal cyanide poisoning related to tampering of Sudafed capsules occurred outside of King County, in nearby western Washington counties.

The classification of undetermined manner is used when the circumstances surrounding the drug death does not allow clarification of whether the fatal intoxication was intentional, unintentional ("recreational"), or involved another person's actions. In the year 1999 there were 11 deaths of undetermined manner attributed to drugs and poisons compared to 28 in 1998, 3 in 1997, and 21 in 1996.

In 1999 there were 35 suicides attributed to drugs/poisons as compared to 27 in 1998.

There were 164 accidental overdoses of drugs/poisons in 1999 compared to 179 in 1998 and 155 in 1997. This is greater than three times the number of accidental drug deaths since 1991 when there were 48 deaths. In 1999 accidental drug deaths comprised 41% (164/404) of all accidents.

In 1999, 70% (148/210) of all deaths due to drugs and poisons involved cocaine or opiates¹, often in combination. This compares with 71% (165/234) in 1998. Opiates were the most frequently implicated drug, either alone or in combination, comprising 54% (114/210) of the drug caused deaths. This is a decrease compared to the 149 opiate deaths in 1998. Since 1985 when there were 30 opiate caused deaths, there has been a greater than 400% increase in the absolute number of deaths where opiates are implicated.

Cocaine, either alone or in combination with other drugs, was implicated in 35% (73/210) of the 1999 drug caused deaths. These 73 cocaine deaths compare with 70 cocaine deaths in 1998, 62 in 1997 and 72 in 1996. 1988 remains the only year when there were more cocaine (45) than opiate (43) deaths.

Of the combined drug intoxication's involving either cocaine or opiates, 57 involved both cocaine and opiates (and possibly other drugs). Use of opiates and cocaine predominated in accidental and undetermined drug caused deaths.

Ethanol (alcohol) is also a drug to be critically examined for its contribution to the circumstances surrounding death. In 1999, four accidental deaths were attributed to acute ethanol intoxication where ethanol was the single substance used. There were 56 deaths where ethanol, in combination with other drugs, was the cause of death. Blood alcohol (ethanol) tests were performed in 79% (753/957) of non-natural deaths. Blood alcohol tests are only performed when death occurs within 24 hours of the initial injury/event. Positive blood alcohol levels were detected in 31% (230/753) of non-natural deaths where tests were performed.

Blood alcohol tests are performed on most persons who die within 24 hours of the incident. It should be noted that in many cases of traffic and homicide deaths, persons other than the decedent might have been involved who were under the influence of alcohol. The blood alcohol data is presented to show the levels of alcohol among those that died, but does not reflect the presence of alcohol among all parties involved.

¹When the term "opiates" is used in this section, the drug detected by analysis is morphine.

Table 9-1 Blood Alcohol Testing and Manner of Death

Test Results	ACCIDENT	TRAFFIC	HOMICIDE	NATURAL	SUICIDE	UNDETERMINED	TOTAL
Tested	263	164	81	338	208	37	1091
<i>positive</i>	76	47	25	61	67	15	291
<i>negative</i>	187	117	56	277	141	22	800
Not tested	141	36	8	173	13	6	377
Total	404	200	89	511	221	43	1468

Table 9-2 Blood Alcohol Testing as a Percentage by Manner

Test Results	ACCIDENT	TRAFFIC	HOMICIDE	NATURAL	SUICIDE	UNDETERMINED	TOTAL
Tested	65%	82%	91%	66%	94%	86%	74%
<i>positive</i>	29%	29%	31%	18%	32%	41%	27%
<i>negative</i>	71%	71%	69%	82%	68%	59%	73%
Not tested	35%	16%	9%	34%	6%	14%	26%

DRUGS INCLUDED IN CATEGORIES IN TABLE 9-3

ALCOHOL/ETHANOL
 COCAINE (STIMULANT)
 OPIATES/MORPHINE ASSOCIATED WITH DRUG ABUSE
 PRESCRIPTION OPIATES: hydrocodone, codeine, propoxyphene, meperidine, methadone, pentazocine, sufentanil, fentanyl, oxycodone, acetomethadol, hydromorphone
 ANTICONVULSANTS: phenytoin, carbamazepine, valproic acid, gabapentin,
 ANTI-DEPRESSANTS: sertraline, fluoxetine, doxepin, trazodone, amitriptyline, nortriptyline, imipramine, paroxetine, bupropion, clomipramine, venlafaxine, citalopram
 ANTIHISTAMINES: doxylamine, dextromethorphan, chlorpheniramine, methocarbamol, naproxen, diphenhydramine
 ANALGESICS: salicylate, acetaminophen, ibuprofen, tramadol, butalbital, aspirin
 BARBITURATES: secobarbital, phenobarbital, butalbital
 CARDIAC MEDICATIONS: verapamil, propranolol, diltiazem
 TRANQUILIZERS: nordazepam, meprobamate, chlordiazepoxide, diazepam, venlafaxine, diphenhydramine, oxazepam, buspirone, alprazolam, promethazine, temazepam, thioridazine, hydroxyzine, carisoprodol, benzodiazepine, lorazepam, desipramine, flurazepam, zolpidem
 STIMULANTS: methamphetamines
 OTHER: trichloroethanol
 MUSCLE RELAXANT: cyclobenzaprine, quinine
 ANESTHETIC AGENT: ketamine
 ANTIPSYCHOTICS: quetiapine, chlorpromazine
 GASTRO INTESTINAL MEDICATIONS: metoclopramide
 ANTIHYPERTENSIVE: diltiazem

Table 9-3 Drug/Poison Caused Deaths

SINGLE DRUGS/POISONS	MANNER			TOTAL
	A	S	U	
<i>Analgesics</i>	1	4		5
<i>Anticonvulsant</i>	1			1
<i>Antidepressants</i>		4		4
<i>Barbiturates</i>	1	2		3
<i>Cardiac Medication</i>		1		1
<i>Cocaine</i>	11			11
<i>Ethanol</i>	4			4
<i>Insulin</i>		2		2
<i>Opiates</i>	26			26
<i>Prescription Opiates</i>	5	2	1	8
<i>Stimulants (other than cocaine)</i>	5			5
<i>Tranquilizers</i>		1		1
<i>Single Drugs/Poisons Totals</i>	54	16	1	71

Table 9-3 Drug/Poison Caused Deaths (Cont...)

MULTIPLE DRUGS/POISONS	MANNER			TOTAL
	A	S	U	
<i>Alcohol, analgesics, tranquilizers</i>			1	1
<i>Alcohol, antidepressants, cocaine</i>			1	1
<i>Alcohol, antidepressants, opiates, cocaine</i>	1			1
<i>Alcohol, opiates</i>	11			11
<i>Alcohol, opiates, antidepressants</i>	1			1
<i>Alcohol, opiates, cocaine</i>	4			4
<i>Alcohol, Tranquilizers</i>	1	1		2
<i>Analgesics, insulin</i>		1		1
<i>Analgesics, stimulant</i>		1		
<i>Anticonvulsant, antidepressants, cardiac medication, barbiturates, Tranquilizers</i>		1		1
<i>Antidepressant, prescription opiates, tranquilizers, ethanol</i>	1			1
<i>Antidepressant, antihypertensive, gastro intestinal medication</i>		1		1
<i>Antidepressant, antipsychotic</i>		1		1
<i>Antidepressant, barbiturates</i>		1		1
<i>Antidepressant, cocaine</i>			1	1
<i>Antidepressant, ethanol</i>		2		2
<i>Antidepressant, prescription opiates, anticonvulsant</i>		1		1
<i>Antidepressant, prescription opiates, antipsychotics, sedative, tranquilizers, stimulants, alcohol</i>		1		1
<i>Antidepressant, stimulants</i>		1		1
<i>Barbiturates, antihistamines</i>		1		1
<i>Cardiac medications, antipsychotics</i>			1	1
<i>Cardiac medications, anticonvulsant</i>			1	1
<i>Cocaine, opiates</i>	3			3
<i>Cocaine, opiates, antidepressants</i>	1			1
<i>Cocaine, prescription opiates</i>	2			2
<i>Cocaine, prescription opiates, ethanol</i>	1			1
<i>Cocaine, prescription opiates, tranquilizers</i>	1			1
<i>Cocaine, stimulants</i>	1			1
<i>Muscle relaxant, antidepressants</i>		1		
<i>Opiates, analgesics, tranquilizers, anticonvulsant</i>		1		1

Table 9-3 Drug/Poison Caused Deaths (Cont...)

MULTIPLE DRUGS/POISONS (Cont...)	MANNER			TOTAL
	A	S	U	
<i>Opiates, antidepressants</i>	1		1	2
<i>Opiates, antidepressants, ethanol</i>	1			1
<i>Opiates, cocaine</i>	22			22
<i>Opiates, cocaine, antidepressants</i>	2			2
<i>Opiates, cocaine, ethanol</i>	13			13
<i>Opiates, cocaine, Rx opiates, tranquilizers</i>	1			1
<i>Opiates, cocaine, tranquilizers</i>	2			2
<i>Opiates, cocaine, tranquilizers</i>		1		1
<i>Opiates, ethanol</i>	10			10
<i>Opiates, cocaine, antidepressants, ethanol</i>	1			1
<i>Opiates, Rx opiates</i>	3			3
<i>Opiates, Rx opiates, antidepressants, anticonvulsant</i>	1			1
<i>Opiates, Rx opiates, ethanol</i>	1			1
<i>Opiates, Rx opiates, tranquilizers</i>	1			1
<i>Opiates, stimulant, ethanol</i>	1			1
<i>Opiates, stimulants</i>	2			2
<i>Opiates, stimulants, tranquilizers</i>	1			1
<i>Rx opiates, antidepressants</i>	1		1	2
<i>Rx opiates, antidepressants, antihistamines, tranquilizers</i>	1			1
<i>Rx opiates, cocaine</i>	2			2
<i>Rx opiates, tranquilizers</i>	1			1
<i>Rx opiates, tranquilizers, antidepressants, ethanol</i>		1		1
<i>Stimulants, opiates</i>	1			1
<i>Stimulants, Rx opiates</i>	1			1
<i>Tranquilizers, antidepressants</i>			1	1
<i>Tranquilizers, antihistamines</i>		1		1
<i>Tranquilizers, ethanol</i>	1			1
<i>Zinc, cadmium</i>			1	1
<i>Other, anticonvulsant, antidepressants</i>		1		
Multiple Drugs/Poisons Total	99	19	9	124

Table 9-3

Drug/Poison Caused Deaths (Cont...)

PRIMARY CAUSE BROUGHT ABOUT DUE TO HISTORY OF SUBSTANCE ABUSE	MANNER			TOTAL
	A	S	U	
<i>Arteriosclerotic cardiovascular disease</i>	3			3
<i>Bronchial asthma</i>	1			1
<i>Cardiac arrest</i>			1	1
<i>Cardiomyopathy</i>	1			1
<i>Cirrhosis</i>	1			1
<i>Glioblastoma of brain</i>	1			1
<i>Hypertensive & ventricular fibrillation</i>	1			1
<i>Hypertensive arteriosclerotic cardiovascular disease</i>	2			2
<i>Infective endocarditis</i>	1			1
<i>Primary Cause Brought About Due to History Of Substance Abuse</i>	11	0	1	12
Drugs/Poisons Grand Totals	164	35	11	210

Graph 9-1 Deaths Caused by Drug/Poison 1990-1999

Comparison of Manner of Death among Drug/Poison Caused Deaths 1990-1999

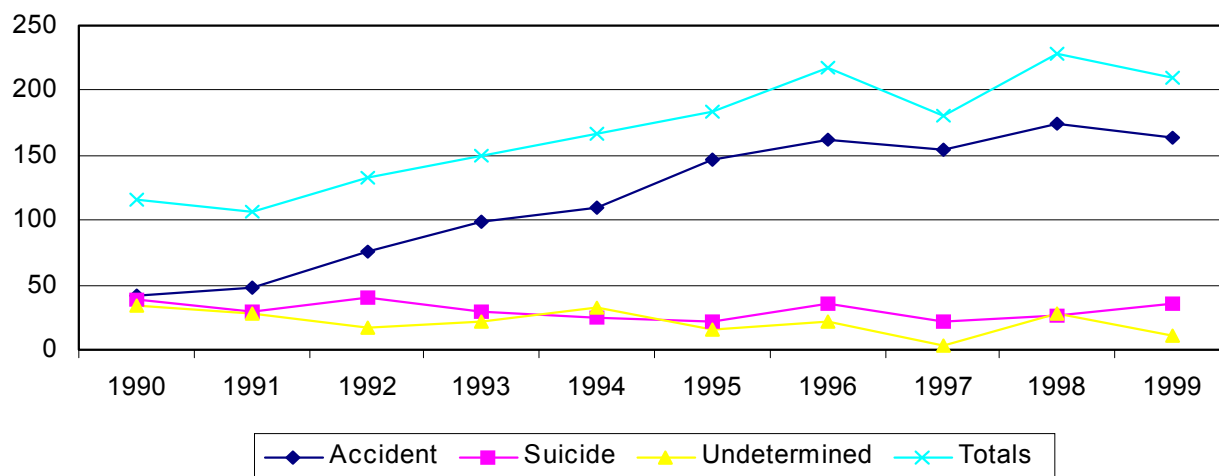


Table 9-4 Drug Caused Deaths Involving Cocaine, Opiates: 1995-

1999

DRUG COMBINATIONS FOUND	YEAR OF DEATH				
	1995	1996	1997	1998	1999
Cocaine alone	6	14	7	7	11
Cocaine and opiates	28	28	17	14	29
Cocaine, opiates, and others	27	20	26	40	28
Cocaine, others without opiates	6	10	12	9	3
Opiates alone	32	30	26	31	26
Opiates, others without cocaine	45	56	43	64	43
Subtotal, cocaine or opiate involved	144	158	131	165	148
Percentage, cocaine or opiate involved	79%	72%	72%	71%	70%
Subtotal, cocaine involved	67	72	62	70	73
Percentage, cocaine involved	37%	33%	34%	30%	35%
Subtotal, opiate involved	132	134	112	149	114
Percentage, opiates involved	72%	61%	62%	64%	54%
All Drug-Caused Deaths	183	218	181	234	210
All Deaths Under KCME Jurisdiction	1504	1558	1491	1507	1468

Graph 9-2 Drug Caused Deaths Involving Cocaine, Opiates: 1995-1999

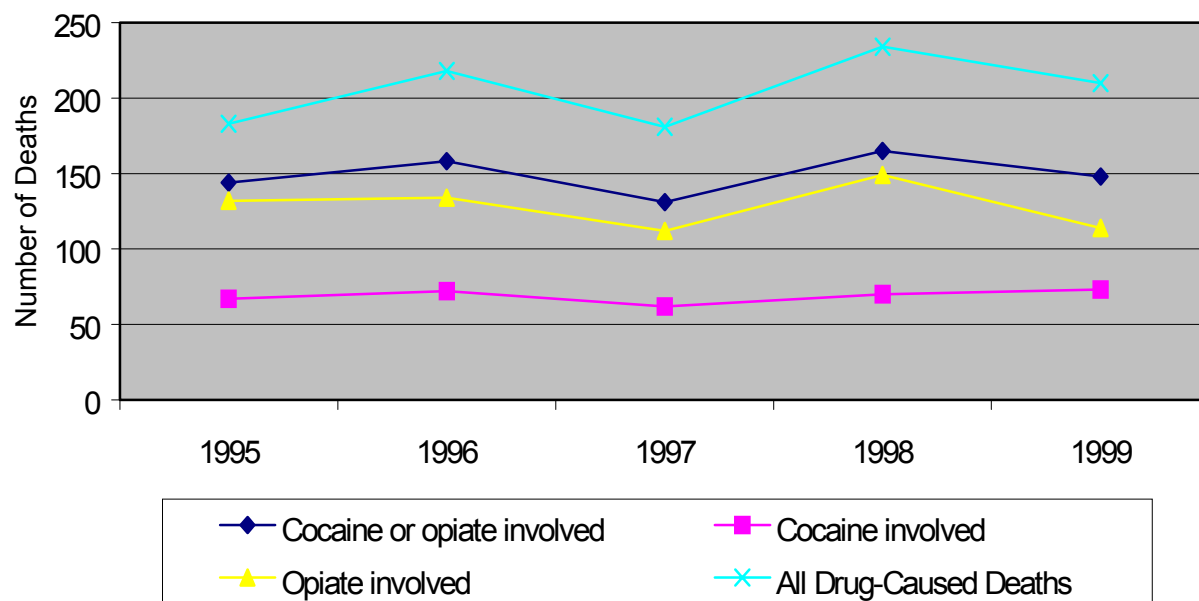


Table 9-5 Drug and Poison Deaths and Age Group of the Decedent

AGE GROUP (YEARS)	MANNER OF DEATH			SUB TOTAL	TOTAL
	ACCIDENT	SUICIDE	UNDETERMINED		
<20	3	5	0		8
Male	3	3	0	6	
Female	0	2	0	2	
20-29	31	3	1		35
Male	23	2	1	26	
Female	8	1	0	9	
30-39	33	4	4		41
Male	27	2	1	30	
Female	6	2	3	11	
40-49	68	10	4		82
Male	50	3	2	55	
Female	18	7	2	27	
50-59	25	6	1		32
Male	22	1	0	23	
Female	3	5	1	9	
60-69	3	3	1		7
Male	3	2	1	6	
Female	0	1	0	1	
70-79	1	2	0		3
Male	0	1	0	1	
Female	1	1	0	2	
80-89	0	2	0		2
Male	0	1	0	1	
Female	0	1	0	1	
90+	0	0	0		0
Male	0	0	0	0	
Female	0	0	0	0	
Total	164	35	11		210

Graph 9-3 Drug and Poison Deaths and Age Group of the Decedent